

CLAIMS

I claim:

- 5 1. A method to prepare an individualized dosage form of a medicament, the method comprising:
 - (a) receiving information identifying for an individual patient the medicament and a desired dosage amount at a dosage time of the medicament desired for therapeutic effect;
 - 10 (b) selecting at least two pellets comprising the medicament; and
 - (c) combining the pellets into a single capsule to prepare an individualized dosage form that alone or in integral multiples provides the desired dosage amount for the individual patient at the dosage time.
- 15 2. The method of claim 1 that is repeated until individualized dosage forms are prepared to provide for each dosage time in one day for the medicament that is desired for therapeutic effect for the individual patient.
3. The method of claim 1, wherein the method is repeated to prepare individualized dosage forms for at least two individual patients.
- 20 4. The method of claim 1 wherein the information identifies for the individual patient a first and a second medicament and their respective desired dosage amounts for administration at a single dosage time desired for therapeutic effect, the pellets comprise a first pellet comprised of the first medicament and a second pellet comprised of the second medicament, and the pellets are combined into a single capsule that alone or in integral multiples provides the desired dosage amount for the individual patient of
25 the first and second medicaments at the single dosage time.
5. The method of claim 4 that is repeated until individualized dosage forms are prepared for each dosage time in one day for the first and second medicaments that is desired for therapeutic effect for the individual patient.
- 30 6. The method of claim 1 wherein the medicament is selected from the group consisting of prescription medications and nutritional supplements.

7. The method of claim 1 wherein the pellets comprise at least one pellet comprising a medicament and at least one pellet comprising an excipient.
8. The method of claim 7 wherein the pellets comprise at least one pellet comprising a medicament and having a coating that gradually erodes upon exposure to aqueous environments and at least one pellet comprising an excipient and having a coating that rapidly erodes upon exposure to aqueous environments.
9. The individualized dosage form prepared by the method of claim 1.
10. A method to prepare an individualized dosage form of a medicament for reconstitution into a liquid, the method comprising:
 - (a) receiving information identifying for an individual patient the medicament and a desired dosage amount at a dosage time of the medicament desired for therapeutic effect;
 - (b) selecting pellets comprising the medicament and an excipient, wherein if the medicament and the excipient are contained in one pellet, at least two pellets are selected and if the medicament and the excipient are contained in separate pellets, at least one medicament pellet and at least one excipient pellet are selected, further wherein the pellets are dispersible in the liquid at room temperature with agitation; and
 - (c) combining the pellets into a single container to prepare an individualized dosage form; and
 - (d) packaging the single container with instructions to add the liquid to the contents of the single container sufficient to prepare a liquid individualized dosage form.
11. The method of claim 10 that is repeated until individualized dosage forms are prepared to provide for each dosage time in one day for the medicament that is desired for therapeutic effect for the individual patient.
12. The method of claim 10, wherein the method is repeated to prepare individualized dosage forms for at least two individual patients.
13. The method of claim 10 wherein the information identifies for the individual patient a first and a second medicament and their respective desired dosage amounts for administration at a single dosage time desired for therapeutic effect, the pellets

comprise a first pellet comprised of the first medicament and a second pellet comprised of the second medicament, and the pellets are combined into the single container that provides the desired dosage amount for the individual patient of the first and the second medicaments at the single dosage time.

- 5 14. The method of claim 13 that is repeated until individualized dosage forms are prepared for each dosage time in one day for the first and second medicaments that is desired for therapeutic effect for the individual patient.
15. The method of claim 10 wherein the medicament is selected from the group consisting of prescription medications and nutritional supplements.
- 10 16. The individualized dosage form prepared by the method of claim 10.
17. A system for preparing an individualized dosage form comprising:
 - (a) a first database stored on a computer readable medium having data records associated with an individual patient and containing information on a medicament, its desired dosage amount and dosage time for the individual patient;
 - 15 (b) a second database stored on a computer readable medium having data records associated with manufacturing inventory of medicaments, excipients and packaging materials;
 - (c) a third database stored on a computer readable medium having data records associated with capsule formulations of pellets, said pellets comprised of medicaments and excipients;
 - 20 (d) a processor associated with the first, second and third databases that is configured to identify a capsule formulation of pellets that alone or in integral multiples provides the desired dosage amount for the individual patient at the dosage time and that is further configured to identify manufacturing inventory needed to prepare the capsule formulation;
 - 25 (e) a mechanical transport system that is in communication with the processor and that, in response to communication from the processor on the manufacturing inventory needed to prepare the capsule formulation, transports the identified manufacturing inventory from a storage area; and

(f) a dispensing station that receives the identified manufacturing inventory from the mechanical transport system, wherein the dispensing station is in communication with the processor such that information on the capsule formulation is received by the dispensing station and the dispensing station dispensing pellets into a capsule body in a quantity and amount such that an individualized dosage form that alone or in integral multiples provides the desired dosage amount of the medicament for the individual patient at a single dosage time is prepared.

18. The system of claim 17 further comprising a verification station in communication with the processor that analyzes the individualized dosage form to verify that the form contains desired components in desired amounts.

19. The system of claim 18 wherein the verification station comprises (i) a balance; (ii) a dosage color profile analyzer for reflectance spectroscopy; or (iii) both a balance and a dosage color profile analyzer for reflectance spectroscopy.

20. The system of claim 18 still further comprising a consolidating station in communication with the processor, wherein in the consolidating station multiple individualized dosage forms for a single dosing time for the individual patient are consolidated and packaged together in one container that is sealed and labeled with a barcode.

21. The system of claim 20 wherein the consolidating station consolidates multiple individualized dosage forms for more than one dosing time for the individual patient into one shipment labeled with a barcode.

22. A system for preparing an individualized dosage form for reconstitution into a liquid comprising:

(a) a first database stored on a computer readable medium having data records associated with an individual patient and containing information on a medicament, its desired dosage amount and dosage time for the individual patient;

(b) a second database stored on a computer readable medium having data records associated with manufacturing inventory of medicaments, excipients and packaging materials;

- (c) a third database stored on a computer readable medium having data records associated with formulations of pellets for reconstitution in the liquid, said pellets comprised of medicaments and excipients;
- 5 (d) a processor associated with the first, second and third databases that is configured to identify a formulation of pellets for reconstitution in the liquid that provides the desired dosage amount for the individual patient at the dosage time and that is further configured to identify manufacturing inventory needed to prepare the formulation;
- 10 (e) a mechanical transport system that is in communication with the processor and that, in response to communication from the processor on the manufacturing inventory needed to prepare the formulation, transports the identified manufacturing inventory from a storage area; and
- 15 (f) a dispensing station that receives the identified manufacturing inventory from the mechanical transport system, wherein the dispensing station is in communication with the processor such that information on the formulation is received by the dispensing station and the dispensing station dispensing pellets into a single container in a quantity and amount such that an individualized dosage form that provides the desired dosage amount of the medicament for the individual patient at the single dosage time is prepared; and
- 20 (g) a consolidating station in communication with the processor that receives the single container comprising the individualized dosage form, packages the container with written instructions to add the liquid to the contents of the single container sufficient to prepare a liquid individualized dosage form and labels the container with a barcode.
- 25 23. The system of claim 22 further comprising a verification station in communication with the processor that analyzes the individualized dosage form to verify that the form contains desired components in desired amounts.
24. The system of claim 23 wherein the verification station comprises (i) a balance; (ii) a dosage color profile analyzer for reflectance spectroscopy; or (iii) both a balance and a
- 30 dosage color profile analyzer for reflectance spectroscopy.

25. The system of claim 24 wherein the consolidating station consolidates multiple individualized dosage forms for more than one dosing time for the individual patient into one shipment labeled with a barcode.

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